In [ ]:

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#*****************************************************************************
#
#                Assignment : AssignmentFor BigData - in Python
#
#*****************************************************************************
#Task 2
# Given a list of strings - List[String] (“alpha”, “gamma”, “omega”, “zeta”, “beta”)

# - find count of all strings with length 4
#- convert the list of string to a list of integers, where each string is mapped to its corresponding length
# - find count of all strings which contain alphabet ‘m’
# - find the count of all strings which start with the alphabet ‘a#

list1 = ["alpha","gamma","omega","zeta","beta"]
cntlen = 0
cntstr_m = 0
cntstrbeg_a = 0
list2 = []

for lst in list1:
    strlen = len(lst)
    list2.append(strlen)
    if (strlen  == 4):
        cntlen +=1
    if (lst.find('m') != -1):
        cntstr_m += 1
    if (lst.find('a') == 0):
        cntstrbeg_a +=1


print('-'*80,"\n1.  The Count of Strings from the given List whose Length is 4 is : %d \n" % cntlen,'-'*80)

print('-'*80,"\n2.  The List of Strings replaced with Lengths is  : %s \n" % list2,'-'*80)

print('-'*80,"\n3.  The Count of Strings with character m is : %d \n" % cntstr_m,'-'*80)

print('-'*80,"\n4.  The Count of Strings starting with character a is : %d \n" % cntstrbeg_a,'-'*80)

```

In [ ]:

```
#Task3
# Create an application to find GCD of two numbers.

# taking two numbers from User and Giving the GCD of the number
import math

# Approach1- by using GCD function in Math library

print(" Please enter two numbers :\n",'-'*80)
num1 =   int(input("Enter Number 1 - "))
num2  =  int(input("Enter Number 2 - "))
print("The GCD of these Numbers by using Math.GCD is : %d" % math.gcd(num1,num2))

# Approach2 - by writing function to calculate the GCD of numbers
def calculateGCD(num1, num2):

    if num1 > num2:
        small = num2
    else:
        small = num1
    for i in range(1, small+1):
        if((num1 % i == 0) and (num2 % i == 0)):
            gcd = i

    return gcd


print ("The GCD of numbers by writing a function is : %d "% calculateGCD(num1,num2))

```